#### **MEMORANDUM**

To: Board of Regents

From: Board Office

Subject: Discontinue the Undergraduate Program in Engineering Science, ISU

Date: January 6, 2003

### **Recommended Action:**

Approve Iowa State University's request to discontinue the Undergraduate Program in Engineering Science.

### **Executive Summary:**

Discontinue Program

The University is requesting discontinuance of the undergraduate program in Engineering Science offered by the Department of Aerospace Engineering and Engineering Mechanics (AEEM) in the College of Engineering.

Low Interest in Program

The primary rationale for this proposal is the continuing low interest in the program on the part of students, employers and faculty who have been associated with the program. The proposal is part of an initiative by the AEEM Department to refocus departmental activities and resources on aerospace engineering programs at the undergraduate and graduate levels.

Budget Reduction Recent budget reductions have also been a secondary consideration in the proposal, as the College of Engineering works to identify and focus on its highest priorities, consistent with the needs and advice of its multiple internal and external constituencies.

Current students will be able to graduate

Students in the program were surveyed during the latter part of spring semester 2002 regarding the impact of the proposed program discontinuance on their plans to complete the program at Iowa State. The majority of students surveyed responded and all indicated that they planned to stay and complete the program at ISU. Thirteen of the current students are classified as juniors or seniors. Because of the curriculum requirements' primary reliance on courses offered for students in other curricula, there will be no problem accommodating graduation requirements for the current students during a phase-out period that allows all current students to graduate. According to the University, the currently enrolled students plan to complete the program, and all are expected to do so by 2005.

# Cost Savings

The elimination of this program will allow an estimated \$100,000 to be permanently eliminated from the departmental budget following the phase-out of the program in 2005.

Board of Regents Questions Attached to this memorandum are the University's responses to the Board of Regents questions concerning discontinued programs.

Robert J. Barak

Approved:

Gregory S. Nichols

h/aa/docket/2003/January/GD4r

## **Information Required by the Board of Regents:**

- a. Status and plans of students who are currently enrolled in the program. Students in the program were surveyed during the latter part of Spring semester 2002 regarding the impact of the proposed program discontinuance on their plans to complete the program at Iowa State. The majority of students surveyed responded and all indicated that they planned to stay and complete the program at ISU. Thirteen of the current students are classified as juniors or seniors. Because of the curriculum requirements primary reliance on courses offered for students in other curricula, there will be no problem accommodating graduation requirements for the current students during a phase out period that allows all current students to graduate. As far as we have been able to determine, the currently enrolled students plan to complete the program, and all are expected to do so by 2005 at the latest.
- **b. Projected phase-out information.** As indicated above, only three special courses are offered for this program, and thus associated costs are expected to be minimal. As numbers of continuing students decline, it is anticipated that appropriate course substitutions will be utilized to enable the special Engineering Science courses to be phased out by 2004.
- c. Reallocation expected as a result of the proposed elimination. The elimination of this program will allow an estimated \$100,000 to be permanently eliminated from the department budget following the phase-out period that will end in 2005. This estimate is based upon one faculty FTE and modest program support funding that has been dedicated to the program.
- **d.** Impact of discontinuance on other programs and the institution. The expected impact on other programs and the institution as a whole is expected to be minimal. This program allowed a small number of students a slightly more flexible approach to an engineering degree. Both on- and off-campus constituencies now view that opportunity as being unimportant because of other alternatives available within the College of Engineering for such students. It is estimated (conservatively) that at least half of the 21 currently enrolled students would have come to ISU to study engineering even if this program had not been available. A potential loss of fewer than 10 future students will have negligible impact in a current undergraduate population of 4,963 engineering students.
- **e. Impact on minorities and women.** Current enrollment in this program includes twelve female students and three students from ethnic minority groups (two of whom are female). Although these numbers represent a significant fraction of the program's total enrollment, they do not represent a significant portion of the 791 women or 422 ethnic minority students enrolled in the College of Engineering. Furthermore, it is expected that potential students for this program will select alternative engineering programs if this proposal is approved. There has been no

indication from current students that they chose to come to the College of Engineering primarily because of the availability of this program.

- **f. Potential faculty and staff reassignments.** There are no faculty or staff with full-time responsibility for this program, although it is estimated that approximately one faculty FTE of effort is associated with the program. If the proposal to eliminate the program is approved, the "faculty line" associated with the program will be eliminated from the department via the nonreplacement of a retiring or resigning faculty member.
- **g.** Reallocation of facilities and equipment. There are no facilities or pieces of equipment that are devoted entirely to this program, and because of the low enrollment, the impact of the proposed discontinuance on facilities and equipment will be negligible.